

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	1	("6121504").PN.	USPAT; USOCR	OR	OFF	2006/12/04 10:09
S2	1	("6403854").PN.	USPAT; USOCR	OR	OFF	2006/12/04 10:19
S3	614	585/809.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2006/12/04 10:19
S4	269	585/910.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2006/12/04 10:19
S5	140	585/603.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2006/12/04 10:19
S6	120	585/609.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2006/12/04 10:19
S7	201	585/633.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2006/12/04 10:19
S8	727	585/639.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2006/12/04 10:20
S9	7526	methanol and quench and catalyst	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/12/04 13:16
S10	120	S8 and S9	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/12/04 13:03

## EAST Search History

S11	33	("3928483"   "4025575"   "4044061"   "4252479"   "4447669"   "4496786"   "4499314"   "4547616"   "4677242"   "4788042"   "4843183"   "4851606"   "4861938"   "4973792"   "5095163"   "5126308"   "5191141").PN. OR ("6403854").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/12/04 11:50
S12	727	585/639.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2006/12/04 13:03
S13	7526	methanol and quench and catalyst	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/12/04 13:11
S14	120	S12 and S13	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/12/04 15:46
S15	78	S14 and stage	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/12/04 13:03
S16	11	S15 and quench.ab.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/12/04 13:10
S17	3	methanol and quench and catalyst	EPO; JPO	OR	ON	2006/12/04 13:15
S18	2674	S13 and \$6stage	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/12/04 13:18
S19	269	585/910.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2006/12/04 13:18
S20	7	S18 and S19	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/12/04 13:21

## EAST Search History

S21	1745	585/603,609,809,633,639.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/12/04 13:22
S22	98	S18 and S21	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/12/04 13:53
S23	11	S16 and S22	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/12/04 13:22
S24	2036	quench\$4 near4 stage\$3	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/12/04 13:55
S25	231	S24 and methanol	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/12/04 13:55
S26	142	S24 and "585"/\$.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/12/04 13:55
S27	34	S26 and quench\$4.ab.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/12/04 13:56
S28	17	("1880309"   "1938991"   "2236534"   "2928886"   "2945075"   "3236905"   "3342724").PN. OR ("3674890").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/12/04 14:26
S29	1	("6838578").PN.	USPAT; USOCR	OR	OFF	2006/12/04 14:27
S30	322	lattner.in.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2006/12/04 14:28

## EAST Search History

S31	42261	oxygenate\$	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2006/12/04 14:28
S32	127	S30 and S31	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	OFF	2006/12/04 14:28
S33	538	quench\$ with stripping	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/12/04 15:47
S34	387432	water and methanol	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/12/04 15:50
S35	94	S33 and S34	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/12/04 15:48
S36	24	S35 and "585"/\$.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/12/04 15:50
S37	888	quench\$ same stripping same separat\$4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/12/04 15:51
S38	208	S37 and "585"/\$.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/12/04 15:51
S39	1745	585/603,609,809,633,639.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/12/04 15:52
S40	34	S37 and S39	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/12/04 15:52

## EAST Search History

S41	218	quench\$ same water same methanol same olefin	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/12/05 11:56
S42	687351	remov\$3 with water	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/12/05 11:57
S43	157	S41 and S42	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/12/05 11:58
S44	21	S43 and quench\$.ab.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/12/05 12:37
S45	2	WO-9955650-\$.did.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT	OR	ON	2006/12/05 12:42
S46	1	("6403854").PN.	USPAT; USOCR	OR	OFF	2006/12/05 15:40
S47	1	("6121504").PN.	USPAT; USOCR	OR	OFF	2006/12/05 13:12
S48	1	("3674890").PN.	USPAT; USOCR	OR	OFF	2006/12/05 14:02
S49	1	("3674890").PN.	USPAT; USOCR	OR	OFF	2006/12/06 11:24
S50	209	208/48Q.ccls.	USPAT	OR	OFF	2006/12/05 15:48
S51	4465	methanol.ab.	USPAT	OR	OFF	2006/12/05 15:48
S52	1	S50 and S51	USPAT	OR	OFF	2006/12/05 15:48
S53	1	S50 and oxygenate	USPAT	OR	OFF	2006/12/05 15:49
S54	116	585/535.ccls.	USPAT	OR	OFF	2006/12/05 15:50
S55	0	S51 and S54	USPAT	OR	OFF	2006/12/05 15:49
S56	0	S54 and oxygenate	USPAT	OR	OFF	2006/12/05 15:49
S57	232	quench adj ring	US-PGPUB; USPAT; USOCR	OR	ON	2006/12/06 14:25
S58	748761	tubular	US-PGPUB; USPAT; USOCR	OR	ON	2006/12/06 11:24

## EAST Search History

S59	68	S57 and S58	US-PGPUB; USPAT; USOCR	OR	ON	2006/12/06 11:25
S60	15	S59 and quench.ab.	US-PGPUB; USPAT; USOCR	OR	ON	2006/12/06 11:25
S61	232	quench adj ring	US-PGPUB; USPAT; USOCR	OR	ON	2006/12/06 14:26
S62	58	S61 and pipe and flow	US-PGPUB; USPAT; USOCR	OR	ON	2006/12/06 14:26
S63	26	("2754340"   "2775629"   "2901418"   "3498906"   "3514264"   "3544086"   "3593968"   "3690839"   "3878088"   "3907661"   "3959420"   "4107226"   "4150716"   "4279733"   "4279734"   "4444697"   "5061408"   "5874134"   "6019818").PN. OR ("6626424").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2006/12/06 14:33
S64	36	quench with ring with nozzle	US-PGPUB; USPAT; USOCR	OR	OFF	2006/12/06 14:33